

REMARKS

This communication is in response to the Office Action mailed on August 28, 2006. Additionally, this communication follows an interview between Examiner Coughlan and the undersigned. The undersigned respectfully thanks Examiner Coughlan for his time in conducting the interview. In the Office Action, claims 1-9 and 11-36 were pending.

The Office Action reports that claims 1-9 and 11-36 were rejected under 35 U.S.C. §101 for being directed to nonstatutory subject matter. During the interview, the undersigned discussed adding a classification module to the claims. Examiner Coughlan stated that this feature would likely not constitute a substantial practical application. Applicants respectfully disagree and ask for reconsideration of amended independent claims 1, 22, 27 and 36. For these claims, the feature, "forming a classification module for labeling data based at least in part on the first classifier and the second classifier" has been added. The United States Patent and Trademark Office issued Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility (the Guidelines) in the Official Gazette Notice of November 22, 2005. In the Guidelines, it is stated that:

"To satisfy §101 requirements, the claim must be practical application of the §101 judicial exception, which can be identified in various ways:

- The claimed invention "transforms" an article or physical object to a different state or a thing.
- The claimed invention otherwise produces a useful, concrete and tangible result, based on the factors discussed below." (The Guidelines § IV, C, 2).

The definition of a useful, concrete and tangible result is found in the guidelines. For a result to be "useful"

it must satisfy the utility requirement of §101. The United States Patent and Trademark Office's official interpretation of the utility requirement provides that the utility of an invention has to be (i) specific, (ii) substantial, and (iii) credible. (The Guidelines § IV, C, 2, b (1)). A result is "concrete" if it can be assured. "In other words, the process must have a result that can be substantially repeatable or the process must substantially produce the same results again." (The Guidelines § IV, C, 2, b, (3)). A result is "tangible" if it produces "a real world result." (Interim Guidelines § IV, C, 2, b (2)).

An example of a useful, concrete and tangible result is found in *State Street Bank and Trust Company v. Signature Financial Group Inc.*, 149 F.3d 1368, 47 USPQ 2d 1596 (Fed. Cir. 1998), the case which first set this standard. In *State Steet*, it was stated that "[t]he transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula or calculation because it produces a useful, concrete and tangible result - a final share price momentarily fixed for recording and reporting purposes and even accepted and relied upon by regulatory authorities and in subsequent trades." Thus, the court did not care that a mathematical algorithm was used, only that the end result, the share price, was a useful, concrete and tangible result.

In independent claims 1, 22, 27 and 38 statutory subject matter that has a practical application which produces a useful, concrete and tangible result, the very definition of a practical application. In particular, the amended independent claims recite a classification module for labeling data.

Classification modules are useful in many situations for labeling data. These situations include speech and handwriting recognition, web page classification, word translation models and news article classification, to name a few. A classification module is also a "concrete" result.

Applying the classification module to process data will repeatedly result in data labeling each time the module is used. Thus, the questions can be produced in a repeatable fashion, the definition of a concrete result. Lastly, such a question is a "tangible" result since it is a real world result. As noted in the specification, classification modules can be generated to provide reliable classification of data. Thus, the module is not abstract but a real tangible thing that can be used in data classification.

Since the classification module for labeling data is useful, concrete and tangible, the independent claims produce a useful, concrete and tangible result and therefore has a practical application as required by the Guidelines.

Since the independent claims form useful, concrete and tangible results, the claims that depend therefrom also form such results. As such, claims 1-9 and 11-38 all define statutory processes and do not merely manipulate an abstract idea but instead produce useful, concrete and tangible results.

The Office Action further reports that claims 1-9, 11-13, 18-25 and 27-36 were rejected under 35 U.S.C. §102(a) as being anticipated by Lian et al., "Uncertainty Reduction in Collaborative Bootstrapping: Measuring and Algorithm" Additionally, claims 14-17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lian and Gil ("Formalizing Spider Diagrams") and claim 26 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Lian and Kokubo (U.S. Patent Application No. 2003/0144899). It is noted that the present inventors are authors of the Lian reference. A declaration under 37 C.F.R. 1.132 is filed herewith by inventors Yunbo Cao and Hang Li stating that the Lian reference is their own work. Thus, it is requested that the rejections under 35 U.S.C. §§102 and 103 to claims 1-9 and 11-36 be withdrawn.

In view of the foregoing, Applicants submit that claims 1-9 and 11-36 are in condition for allowance. As such, allowance of the present application is requested.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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